Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Cancelled)

2.   (Currently Amended)   Imaging method according to claim [1] 14, characterised in that the imitation (8) is a block of constant thickness and in a homogeneous material, with an attenuation similar to a base material of the object.

3.   (Currently Amended)   Imaging method according to claim [1] 14, characterised in that the taking of the measurement table is a selection in a series of scattered diffusion measurement tables, obtained by successively passing the initial radiation through a respective series of imitations of the object, which are blocks of different but constant thickness and in a homogeneous material, having an attenuation similar to a base material of the object.

4.   (Original)   Imaging method according to claim 3, characterised in that the selection comprises an interpolation between two tables of measurements.

5.   (Currently Amended)   Imaging method according to either of claims 3 or 4 claim 3, characterised in that the selection is carried out by comparing a value of the total measurement radiation through the object and a value of the total measurement radiation through the imitations.

6.   (Original)   Imaging method according to claim 5, characterised in that the comparison is carried out for identical rays (13) of the initial radiation through the object and the imitations, only going through the base material of the object.

7.   (Cancelled)

8.   (Cancelled)

9.   (Currently Amended)   Imaging method according to ~~any of claims 1 to 8~~ claim 14, characterised in that it comprises a step of low pass filtering of the transposition coefficients, arranged in a table superposable on the table of measurements.

10.   (Cancelled)

11.   (Currently Amended)   Application of the method according to ~~any of the preceding claims~~ claim 14 to tomography.

12.   (Currently Amended)   Application of the method according to ~~any of claims 1 to 11~~ claim 14 to bone densitometry.

13.   (Currently Amended)   Application of the method according to ~~any of claims 1 to 11~~ claim 14 to non-destructive controls.

14.   (New)   An object imaging method by multiple acquisitions, the acquisitions consisting in passing a radiation through the object, measuring the radiation having passed through the object, the radiation being attenuated through the object from an initial radiation (Φ_0) to a total measurement radiation (Φ_t object), and subtracting an estimation of a scattered radiation (Φ_d object) from the total measurement radiation, the measurement radiation and scattered radiation consisting of values associated to respective parts of the object, and wherein:

for at least one of said acquisitions, 15 values of scattered radiation (Φ_d imitation) are measured in passing the initial radiation through an imitation (8) of the objet, transposition coefficients (K) relating the scattered radiation through the object to the scattered radiation through the imitation (8) are calculated based on the initial radiation (Φ_0), the total measurement radiation (Φ_t object) through the object and a total measurement radiation through the imitation (Φ_t imitation),

4

the scattered radiation through the object in estimated with the transposition coefficients and the scattered radiation through the imitation,

the values of total measurement radiation through the objects, the values of scattered radiation through the imitation and the transposition coefficients being spread in respective tables comprising corresponding elements so that each of the transposition coefficients is associated to a respective part of the object.

15.   (New)   An object imaging method according to claim [1] 14, wherein the coefficients are computed according to the formula:

$$K = \frac{[\Phi_t \log (\Phi_t/\Phi_o)] \text{ object}}{[\Phi_t \log (\Phi_t/\Phi_o)] \text{ imitation}} \quad .$$